



Missouri Department of Natural Resources
Air Pollution Control Program

PERMIT TO OPERATE

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to operate the air contaminant source(s) described below, in accordance with the laws, rules, and conditions set forth here in.

Operating Permit Number: OP

Expiration Date:

Installation ID: 163-0047

Project Number: 2003-04-092

Installation Name and Address

Peno Creek Energy Center
16303 Pike 43
Bowling Green, MO 63334
Pike County

Parent Company's Name and Address

AmerenUE
1901 Chouteau Avenue
P.O. Box 66149
St. Louis, MO 63166-6149

Installation Description:

This installation generates electrical power for distribution and sale. It is operated as a peaking unit, generating power during periods of high electrical demand. The installation consists of four dual-fuel fired Pratt-Whitney FT8 Twin Pacs, each with the capacity to produce 60 MW of electrical power; total installation generation capacity is 240 MW of electrical power. The turbines combust either natural gas or No. 2 fuel oil. There is also a 1.3 million gallon fuel oil tank on site. Each Pratt-Whitney FT8 Twin Pac consists of two combustion turbines coupled to a single electrical generator.

Effective Date

Director or Designee
Department of Natural Resources

Table of Contents

I. INSTALLATION DESCRIPTION AND EQUIPMENT LISTING	3
INSTALLATION DESCRIPTION.....	3
EMISSION UNITS WITH LIMITATIONS.....	3
EMISSION UNITS WITHOUT LIMITATIONS.....	3
DOCUMENTS INCORPORATED BY REFERENCE.....	3
II. PLANT WIDE EMISSION LIMITATIONS	4
Permit Condition PW001	4
10 CSR 10-6.170	4
III. EMISSION UNIT SPECIFIC EMISSION LIMITATIONS	5
EU – CT1A through EU – CT4B	5
Permit Condition (EU – CT1A through EU – CT4B) – 001.....	5
10 CSR 10-6.060	5
Air Pollution Control Program Construction Permit 112001-007	5
Permit Condition (EU – CT1A through EU – CT4B) – 002.....	6
40 CFR Part 60, Subpart GG	6
Permit Condition (EU – CT1A through EU – CT4B) – 003.....	7
10 CSR 10-6.350	7
IV. CORE PERMIT REQUIREMENTS	9
V. GENERAL PERMIT REQUIREMENTS	13
PERMIT DURATION.....	13
GENERAL RECORD KEEPING AND REPORTING REQUIREMENTS	13
RISK MANAGEMENT PLANS UNDER SECTION 112(R).....	13
SEVERABILITY CLAUSE.....	14
GENERAL REQUIREMENTS	14
INCENTIVE PROGRAMS NOT REQUIRING PERMIT REVISIONS.....	14
COMPLIANCE REQUIREMENTS	14
PERMIT SHIELD	15
EMERGENCY PROVISIONS	15
OPERATIONAL FLEXIBILITY	16
OFF-PERMIT CHANGES.....	16
RESPONSIBLE OFFICIAL	16
REOPENING PERMIT FOR CAUSE.....	17
STATEMENT OF BASIS	17
Attachment A.....	18
10 CSR 10-6.170	18

I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

This installation generates electrical power for distribution and sale. It is operated as a peaking unit, generating power during periods of high electrical demand. The installation consists of four dual-fuel fired Pratt-Whitney FT8 Twin Pacs, each with the capacity to product 60 MW of electrical power; total installation generation capacity is 240 MW of electrical power. The turbines combust either natural gas or No. 2 fuel oil. There is also a 1.3 million gallon fuel oil tank on site. Each Pratt-Whitney FT8 Twin Pac consists of two combustion turbines coupled to a single electrical generator. Consequently, there are two (2) combustion sources and two (2) exhaust stacks associated with each turbine set. This installation received a New Source Review (NSR) permit in late 2001, which authorized construction of the installation. It has only been in operation, producing electrical power, since calendar year 2002.

The combustion turbines are capable of firing either natural gas or distillate oil. The distillate oil has a sulfur content of 0.05 percent (%) by weight or less. Each combustion turbine is equipped with water injection to control NO_x emissions to 25 parts per million by volume, dry (ppmvd), when combusting natural gas, and 42 ppmvd when combusting distillate oil. Carbon monoxide is controlled by good combustion practices and by CO catalyst. The CO catalyst has a control efficiency of 80 percent (%) for CO. This installation has the potential to be a major source of PM₁₀, NO_x, VOC, CO, SO_x, and HAPs. However, AmerenUE requested, in the new source review process, that it be conditioned such that potential emissions would not exceed the major source levels.

Reported Air Pollutant Emissions, tons per year							
Year	Particulate Matter ≤ Ten Microns (PM- 10)	Sulfur Oxides (SO _x)	Nitrogen Oxides (NO _x)	Volatile Organic Compounds (VOC)	Carbon Monoxide (CO)	Lead (Pb)	Hazardous Air Pollutants (HAPs)
2002	4.86	0.31	31.08	4.13	2.44	-	-
2003	2.63	0.5	19.67	2.13	6.18	-	-

EMISSION UNITS WITH LIMITATIONS

The following list provides a description of the equipment at this installation that emits air pollutants and which are identified as having unit-specific emission limitations.

Emission Unit #	Description of Emission Unit
EU – CT1A	Pratt-Whitney, FT8
EU – CT1B	Pratt-Whitney, FT8
EU – CT2A	Pratt-Whitney, FT8
EU – CT2B	Pratt-Whitney, FT8
EU – CT3A	Pratt-Whitney, FT8
EU – CT3B	Pratt-Whitney, FT8
EU – CT4A	Pratt-Whitney, FT8
EU – CT4B	Pratt-Whitney, FT8

EMISSION UNITS WITHOUT LIMITATIONS

The following list provides a description of the equipment that does not have unit specific limitations at the time of permit issuance.

Description of Emission Source

EU – FOST Distillate Fuel Oil Storage Tank.

This tank has a capacity of 1.3 million gallons, and an annual throughput of 15.785 million gallons per year. The emission factor is 0.03 lb / 1000 gallon of throughput. 40 CFR Part 60, Subpart Kb does not apply to storage vessels with a capacity greater than or equal to 151 m³ storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa). Fuel oil vapor pressure is significantly less than 3.5 kPa.

DOCUMENTS INCORPORATED BY REFERENCE

These documents have been incorporated by reference into this permit.

- 1) New Source Review Permit Number 112001-007

II. Plant Wide Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements.

Permit Condition PW001

10 CSR 10-6.170

Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin

Emission Limitation:

- 1) The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive particulate matter emissions to go beyond the premises of origin in quantities that the particulate matter may be found on surfaces beyond the property line or origin. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the director;
- 2) The permittee shall not cause nor allow to occur any fugitive particulate matter emissions to remain visible in the ambient air beyond the property line of origin.
- 3) Should it be determined that noncompliance has occurred, the director may require reasonable control measures as may be necessary.

Monitoring:

- 1) The permittee shall conduct inspections of its facilities sufficient to determine compliance with this regulation. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. If a violation of this regulation is discovered, the source shall undertake corrective action to eliminate the violation.

The following monitoring schedule must be maintained:

- a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
- 2) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner to the initial monitoring frequency.

Recordkeeping:

A log must be maintained noting the following:

- 1) Whether air emissions (except water vapor) remain visible in the ambient air beyond the property line of origin.
- 2) Whether the visible emissions were normal for the installation.
- 3) Equipment malfunctions that could cause an exceedance of 10 CSR 10-6.170.
- 4) Any violations of 10 CSR 10-6.170 and any corrective actions undertaken to correct the violation.

Attachment A contains a log including these record keeping requirements. This log, or an equivalent created by the permittee, must be used to certify compliance with this requirement.

Reporting:

The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

III. Emission Unit Specific Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements.

EU – CT1A through EU – CT4B Combustion Turbines			
Emission Unit	General Description	Manufacturer Model #	EQ Reference (Year)
EU – CT1A EU – CT1B	Combustion Turbine Units 1A and 1B (Simple Cycle) Generating Capacity: 60MW total MHDR: 300 MMBTU/hr each (natural gas combustion) 266 MMBTU/hr each (No. 2 oil combustion) Installation Date: 2001 Fuel Type: Natural Gas and No. 2 Fuel Oil	Pratt-Whitney, FT8 Pratt-Whitney, FT8	CT1 (2003)
EU – CT2A EU – CT2B	Combustion Turbine Units 2A and 2B (Simple Cycle) Generating Capacity: 60MW total MHDR: 300 MMBTU/hr each (natural gas combustion) 266 MMBTU/hr each (No. 2 oil combustion) Installation Date: 2001 Fuel Type: Natural Gas and No. 2 Fuel Oil	Pratt-Whitney, FT8 Pratt-Whitney, FT8	CT1 (2003)
EU – CT3A EU – CT3B	Combustion Turbine Units 3A and 3B (Simple Cycle) Generating Capacity: 60MW total MHDR: 300 MMBTU/hr each (natural gas combustion) 266 MMBTU/hr each (No. 2 oil combustion) Installation Date: 2001 Fuel Type: Natural Gas and No. 2 Fuel Oil	Pratt-Whitney, FT8 Pratt-Whitney, FT8	CT1 (2003)
EU – CT4A EU – CT4B	Combustion Turbine Units 4A and 4B (Simple Cycle) Generating Capacity: 60MW total MHDR: 300 MMBTU/hr each (natural gas combustion) 266 MMBTU/hr each (No. 2 oil combustion) Installation Date: 2001 Fuel Type: Natural Gas and No. 2 Fuel Oil	Pratt-Whitney, FT8 Pratt-Whitney, FT8	CT1 (2003)

Permit Condition (EU – CT1A through EU – CT4B) – 001

10 CSR 10-6.060

Construction Permits Required

Air Pollution Control Program Construction Permit 112001-007

Emissions Limitations:

- 1) AmerenUE – Peno Creek Energy Center (AmerenUE) shall emit into the atmosphere from all eight turbine engines (CT1A, CT1B, CT2A, CT2B, CT3A, CT3B, CT4A, and CT4B) no more than 100 tons of carbon monoxide (CO) in any consecutive 12-month period.
- 2) AmerenUE shall emit into the atmosphere from all eight turbine engines (CT1A, CT1B, CT2A, CT2B, CT3A, CT3B, CT4A, and CT4B) no more than 100 tons of nitrogen oxides (NO_x) in any consecutive 12-month period.

Operational Limitation:

All natural gas and/or fuel oil combusted in the equipment covered with this permit shall have a sulfur content of 0.05 percent or less.

Recordkeeping:

- 1) AmerenUE shall maintain the monthly and the sum of the most recent consecutive 12-month records of CO emissions from the eight turbine engines. AmerenUE shall use Attachment "B" *Monthly CO Emissions Tracking Records*, or an equivalent form to demonstrate compliance with Special Condition No. 1 (Emissions Limitations). These records shall be maintained on-site for five years and shall be made available for inspection to the Department of Natural Resources' personnel upon request.
- 2) AmerenUE shall maintain the monthly and the sum of the most recent consecutive 12-month records of NOx emissions from the eight turbine engines. AmerenUE shall use Attachment "C" *Monthly NOx Emissions Tracking Records*, or an equivalent form to demonstrate compliance with Special Condition No. 2 (Emissions Limitations). These records shall be maintained on-site for five years and shall be made available for inspection to the Department of Natural Resources' personnel upon request.

Reporting:

- 1) AmerenUE shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which the *Monthly CO Emissions Tracking Records* (Attachment B) in Special Condition No. 1 (Recordkeeping) indicates that the source exceeded the emission limitation of Special Condition No. 1 (Emissions Limitations).
- 2) AmerenUE shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which the *Monthly NOx Emissions Tracking Records* (Attachment C) in Special Condition No. 2 (Recordkeeping) indicates that the source exceeded the emission limitation of Special Condition No. 2 (Emissions Limitations).

Control Equipment:

- 1) AmerenUE shall control CO emissions from each turbine engine using CO catalyst. The CO catalyst shall be operated and maintained in accordance to manufacturer's specifications at all times the turbine engines are in operation.
- 2) AmerenUE shall control NOx emissions from each turbine engine using water injection. The water injection shall achieve a NOx emission rate of 25 parts per million by volume (ppmvd) correct to 15 percent (%) oxygen on a dry basis. The water injection shall be operated and maintained in accordance to manufacturer's specifications at all times the turbine engines are in operation.

Continuous Emission Monitoring System (CEMS):

- 1) AmerenUE shall install, calibrate maintain and operate continuous monitoring systems and record the output of the systems, for measuring CO and NOx, emissions discharged to the atmosphere. These systems shall be placed in an appropriate location on each turbine engine's flue gas exhaust such that accurate readings are possible. The output data from the CEMS shall be used in demonstrating compliance with Special Condition Nos. 1 and 2 (Emissions Limitations)
- 2) The CEMS (Continuous Emission Monitoring System (CEMS)) shall be installed and operated according to the guidelines in 40 CFR Part 75 for the CO, NOx, and diluent CEMS requirements.

Permit Condition (EU – CT1A through EU – CT4B) – 002

10 CSR 10-6.070

New Source Performance Regulations

40 CFR Part 60, Subpart GG

Standards of Performance for Stationary Gas Turbines

Emission Limitation:

- 1) Stationary gas turbines using water or steam injection for control of NOx emissions are exempt from paragraph 40 CFR §60.332(a) when ice fog is deemed a traffic hazard by the owner or operator of the gas turbine. [40 CFR §60.332(f)]
- 2) Standard for Sulfur Dioxide: On or after the date on which the performance test is required to be conducted by §60.8 is completed, every owner or operator subject to the provisions of this subpart shall comply with one or the other of the following conditions:
 - a) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis. [Subpart GG, §60.333(a)] or

- b) No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel which contains sulfur in excess of 0.8 percent by weight. [Subpart GG, §60.333(b)]

Monitoring:

- 1) The owner or operator of any stationary gas turbine subject to the provisions of this subpart and using water injection to control NO_x emissions shall install and operate a continuous monitoring system to monitor the fuel consumption and the ratio of water to fuel being fired in the turbine. This system shall be accurate to within ± 5.0 percent and shall be approved by the Administrator. [Subpart GG, §60.334(a)]
- 2) The owner or operator of any stationary gas turbine subject to the provisions of this subpart shall monitor the sulfur content and nitrogen content of the fuel being fired in the turbine. The frequency of determination of these values shall be as follows: [Subpart GG, §60.334(b)]
 - a) If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source. [Subpart GG, §60.334(b)(1)]
 - b) If the turbine is supplied its fuel without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Administrator before they can be used to comply with this paragraph. [Subpart GG, §60.334(b)(2)]

Record Keeping/Reporting

For the purpose of reports required under §60.7(c), periods of excess emissions that shall be reported are defined as follows: [Subpart GG, §60.334(c)]

- 1) *Nitrogen oxides.* Any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with §60.332 by the performance test required in §60.8 or any period during which the fuel-bound nitrogen of the fuel is greater than the maximum nitrogen content allowed by the fuel-bound nitrogen allowance used during the performance test required in §60.8. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, gas turbine load, and nitrogen content of the fuel during the period of excess emissions, and the graphs or figures developed under §60.335(a). [Subpart GG, §60.334(c)(1)]
- 2) *Sulfur dioxide.* Any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 percent. [Subpart GG, §60.334(c)(2)]
- 3) *Ice fog.* Each period during which an exemption provided in § 60.332(f) is in effect shall be reported in writing to the Administrator quarterly. For each period the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time the air pollution control system was reactivated shall be reported. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter. [Subpart GG, §60.334(c)(3)]
- 4) *Emergency fuel.* Each period during which an exemption provided in § 60.332(k) is in effect shall be included in the report required in § 60.7(c). For each period, the type, reasons, and duration of the firing of the emergency fuel shall be reported. [Subpart GG, §60.334(c)(4)]

Reporting:

The permittee shall report to the Air Pollution Control Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction which causes an exceedance of this regulation.

Permit Condition (EU – CT1A through EU – CT4B) – 003

10 CSR 10-6.350

Emission Limitations and Emissions Trading of Oxides of Nitrogen

Emission Limitation:

The permittee shall limit the emissions of nitrogen oxides (NO_x) from emission units EU–CT1A through EU–CT4B to 25 parts per million by volume (ppmv), corrected to 15 percent oxygen on a dry basis as set forth by New Source Review Permit 112001-007 during the control period.¹

¹ The period beginning May 1 of a calendar year and ending on September 30 of the same calendar year.

Monitoring:

- 1) Compliance shall be measured during the control period.
- 2) AmerenUE shall install, calibrate maintain and operate the continuous monitoring system and record the output of the systems, for measuring NO_x, emissions discharged to the atmosphere. The output data from the CEMS that is used in demonstrating compliance with Special Condition Nos. 1 and 2 (Emissions Limitations) will be sufficient to demonstrate compliance with 10 CSR 10-6.350
- 3) The CEMS shall be operated according to the guidelines in 40 CFR Part 75 for the NO_x, and diluent CEMS requirements.

Record Keeping:

- 1) AmerenUE shall maintain a NO_x concentration record of 25 parts per million by volume (ppmv), corrected to 15 percent oxygen on a dry basis averaged over the control period. The permittee shall maintain records of the following:
 - a) Total fuel consumed during the control period;
 - b) The total heat input for each emissions unit during the control period;
 - c) Reports of all stack testing conducted to meet the requirements of 10 CSR 10-6.350;
 - d) All other data collected by a CEMS necessary to convert the monitoring data to the units of the applicable emission limitation;
 - e) All performance evaluations conducted in the past year;
 - f) All monitoring device calibration checks;
 - g) All monitoring system, monitoring device and performance testing measurements;
 - h) Records of adjustments and maintenance performed on monitoring systems and devices; and

A log identifying each period during which the CEMS or alternate procedure was inoperative, except for zero (0) and span checks, and the nature of the repairs and adjustments performed to make the system operative

Reporting:

AmerenUE shall submit a compliance certification report to the Air Pollution Control Program for each affected unit by October 31 following each control period.

IV. Core Permit Requirements

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements.

10 CSR 10-6.050, Start-up, Shutdown and Malfunction Conditions

- 1) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the director within two business days in writing the following information:
 - a) Name and location of installation;
 - b) Name and telephone number of person responsible for the installation;
 - c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
 - d) Identity of the equipment causing the excess emissions;
 - e) Time and duration of the period of excess emissions;
 - f) Cause of the excess emissions;
 - g) Air pollutants involved;
 - h) Best estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;
 - i) Measures taken to mitigate the extent and duration of the excess emissions; and
 - j) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
- 2) The permittee shall submit the paragraph (a.) information list to the director in writing at least ten days prior to any maintenance, start-up or shutdown, which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given ten days prior to the planned occurrence, it shall be given as soon as practicable prior to the release. If an unplanned excess release of emissions exceeding one hour occurs during maintenance, start-up or shutdown, the director shall be notified verbally as soon as practical during normal working hours and no later than the close of business of the following working day. A written notice shall follow within ten working days.
- 3) Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph (a.) list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under section 643.080 or 643.151, RSMo.
- 4) Nothing in this rule shall be construed to limit the authority of the director or commission to take appropriate action, under sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.
- 5) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

10 CSR 10-6.065, Operating Permits

The permittee shall file for renewal of this operating permit no sooner than eighteen months, nor later than six months, prior to the expiration date of this operating permit. The permittee shall retain the most current operating permit issued to this installation on-site and shall immediately make such permit available to any Missouri Department of Natural Resources personnel upon request.

10 CSR 10-6.110, Submission of Emission Data, Emission Fees and Process Information

- (a.) The permittee shall complete and submit an Emission Inventory Questionnaire (EIQ) in accordance with the requirements outlined in this rule.
- (b.) The permittee shall pay an annual emission fee per ton of regulated air pollutant emitted according to the schedule in the rule. This fee is an emission fee assessed under authority of RSMo. 643.079 to satisfy the requirements of the Federal Clean Air Act, Title V.

- (c.) The fees shall be due April 1 each year for emissions produced during the previous calendar year. The fees shall be payable to the Department of Natural Resources and shall be accompanied by the Emissions Inventory Questionnaire (EIQ) form or equivalent approved by the director.

10 CSR 10-6.130, Controlling Emissions During Episodes of High Air Pollution Potential

This rule specifies the conditions that establish an air pollution alert (yellow/orange/red/purple), or emergency (maroon) and the associated procedures and emission reduction objectives for dealing with each. The permittee shall submit an appropriate emergency plan if required by the Director.

10 CSR 10-6.150, Circumvention

The permittee shall not cause or permit the installation or use of any device or any other means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission or air contaminant which violates a rule of the Missouri Air Conservation Commission.

10 CSR 10-6.180, Measurement of Emissions of Air Contaminants

- (a.) The director may require any person responsible for the source of emission of air contaminants to make or have made tests to determine the quantity or nature, or both, of emission of air contaminants from the source. The director may specify testing methods to be used in accordance with good professional practice. The director may observe the testing. All tests shall be performed by qualified personnel.
- (b.) The director may conduct tests of emissions of air contaminants from any source. Upon request of the director, the person responsible for the source to be tested shall provide necessary ports in stacks or ducts and other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.
- (c.) The director shall be given a copy of the test results in writing and signed by the person responsible for the tests.

10 CSR 10-3.030, Open Burning Restrictions

- (a.) The permittee shall not conduct, cause, permit or allow a salvage operation, the disposal of trade wastes or burning of refuse by open burning.
- (b.) Exception - Open burning of trade waste or vegetation may be permitted only when it can be shown that open burning is the only feasible method of disposal or an emergency exists which requires open burning.
- (c.) Any person intending to engage in open burning shall file a request to do so with the director. The request shall include the following:
- (1.) The name, address and telephone number of the person submitting the application; The type of business or activity involved; A description of the proposed equipment and operating practices, the type, quantity and composition of trade wastes and expected composition and amount of air contaminants to be released to the atmosphere where known;
 - (2.) The schedule of burning operations;
 - (3.) The exact location where open burning will be used to dispose of the trade wastes;
 - (4.) Reasons why no method other than open burning is feasible; and
 - (5.) Evidence that the proposed open burning has been approved by the fire control authority which has jurisdiction.
- (d.) Upon approval of the open burning permit application by the director, the person may proceed with the operation under the terms of the open burning permit. Be aware that such approval shall not exempt the Peno Creek Energy Center from the provisions of any other law, ordinance or regulation.
- (e.) The permittee shall maintain files with letters from the director approving the open burning operation and previous DNR inspection reports.

10 CSR 10-3.090, Restriction of Emission of Odors

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven volumes of odor-free air for two separate trials not less than 15 minutes apart within the period of one hour.

This requirement is not federally enforceable.

10 CSR 10-6.100, Alternate Emission Limits

Proposals for alternate emission limitations shall be submitted on Alternate Emission Limits Permit forms provided by the department. An installation owner or operator must obtain an Alternate Emission Limits Permit in accordance with 10 CSR 10-6.100 before alternate emission limits may become effective.

10 CSR 10-6.080, Emission Standards for Hazardous Air Pollutants
40 CFR Part 61 Subpart M, National Emission Standard for Asbestos

- (a) The permittee shall follow the procedures and requirements of 40 CFR Part 61, Subpart M for any activities occurring at this installation which would be subject to provisions for 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos.
- (b) The permittee shall conduct monitoring to demonstrate compliance with registration, certification, notification, and Abatement Procedures and Practices standards as specified in 40 CFR Part 61, Subpart M.

10 CSR 10-6.250, Asbestos Abatement Projects – Certification, Accreditation, and Business Exemption Requirements

The permittee shall conduct all asbestos abatement projects within the procedures established for certification and accreditation by 10 CSR 10-6.250. This rule requires individuals who work in asbestos abatement projects to be certified by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires training providers who offer training for asbestos abatement occupations to be accredited by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires persons who hold exemption status from certain requirements of this rule to allow the department to monitor training provided to employees. Each individual who works in asbestos abatement projects must first obtain certification for the appropriate occupation from the department. Each person who offers training for asbestos abatement occupations must first obtain accreditation from the department. Certain business entities that meet the requirements for state-approved exemption status must allow the department to monitor training classes provided to employees who perform asbestos abatement.

Title VI – 40 CFR Part 82, Protection of Stratospheric Ozone

- (a.) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - (1.) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
 - (2.) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
 - (3.) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
 - (4.) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
- (b.) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
 - (1.) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
 - (2.) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - (3.) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - (4.) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
 - (5.) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
 - (6.) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
- (c.) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
- (d.) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of

Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.

The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR part 82*

10 CSR 10-6.280, Compliance Monitoring Usage

- a) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
 - 1) Monitoring methods outlined in 40 CFR Part 64;
 - 2) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - 3) Any other monitoring methods approved by the director.
- b) Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred by a permittee:
 - 1) Monitoring methods outlined in 40 CFR Part 64;
 - 2) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - 3) Compliance test methods specified in the rule cited as the authority for the emission limitations.
- c) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
 - 1) Applicable monitoring or testing methods, cited in:
 - 10 CSR 10-6.030, "Sampling Methods for Air Pollution Sources";
 - 10 CSR 10-6.040, "Reference Methods";
 - 10 CSR 10-6.070, "New Source Performance Standards";
 - 10 CSR 10-6.080, "Emission Standards for Hazardous Air Pollutants"; or
 - 2) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method listed above.

V. General Permit Requirements

Permit Duration

10 CSR 10-6.065(6)(C)1.B.

This permit is issued for a term of five years, commencing on the date of issuance. This permit will expire at the end of this period unless renewed.

General Record Keeping and Reporting Requirements

10 CSR 10-6.065(6)(C)1.C

I) Record Keeping

- A) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
- B) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources' personnel upon request.

II) Reporting

- A) The permittee shall submit a report of all required monitoring by:
 - 1) October 1st for monitoring which covers the January through June time period, and
 - 2) April 1st for monitoring which covers the July through December time period.
 - 3) Exception: Monitoring requirements which require reporting more frequently than semi annually shall report no later than 30 days after the end of the calendar quarter in which the measurements were taken.
- B) Each report must identify any deviations from emission limitations, monitoring, record keeping, reporting, or any other requirements of the permit, this includes deviations or Part 64 exceedances.
- C) All reports shall be submitted to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102.
- D) Submit supplemental reports as required or as needed. Supplemental reports are required no later than ten days after any exceedance of any applicable rule, regulation or other restriction. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
 - 1) Notice of any deviation resulting from an emergency (or upset) condition as defined in paragraph (6)(C)7 of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if you wish to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and that you can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.
 - 2) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.
 - 3) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's semiannual report shall be reported on the schedule specified in the permit.
 - 4) These supplemental reports shall be submitted to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any applicable rule, regulation, or other restriction.
- E) Every report submitted shall be certified by the responsible official, except that, if a report of a deviation must be submitted within ten days after the deviation, the report may be submitted without a certification if the report is resubmitted with an appropriate certification within ten days after that, together with any corrected or supplemental information required concerning the deviation.
- F) The permittee may request confidential treatment of information submitted in any report of deviation.

Risk Management Plans Under Section 112(r)

10 CSR 10-6.065(6)(C)1.D.

The permittee shall comply with the requirements of 40 CFR Part 68, Accidental Release Prevention Requirements. If the permittee has more than a threshold quantity of a regulated substance in process, as determined by 40 CFR Section 68.115, the permittee shall submit a Risk Management Plan in accordance with 40 CFR Part 68 no later than the latest of the following dates:

- 1) June 21, 1999;
- 2) Three years after the date on which a regulated substance is first listed under 40 CFR Section 68.130; or
- 3) The date on which a regulated substance is first present above a threshold quantity in a process.

Severability Clause

10 CSR 10-6.065(6)(C)1.F.

In the event of a successful challenge to any part of this permit, all uncontested permit conditions shall continue to be in force. All terms and conditions of this permit remain in effect pending any administrative or judicial challenge to any portion of the permit. If any provision of this permit is invalidated, the permittee shall comply with all other provisions of the permit.

General Requirements

10 CSR 10-6.065(6)(C)1.G

- 1) The permittee must comply with all of the terms and conditions of this permit. Any noncompliance with a permit condition constitutes a violation and is grounds for enforcement action, permit termination, permit revocation and re-issuance, permit modification or denial of a permit renewal application.
- 2) The permittee may not use as a defense in an enforcement action that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
- 3) The permit may be modified, revoked, reopened, reissued or terminated for cause. Except as provided for minor permit modifications, the filing of an application or request for a permit modification, revocation and re-issuance, or termination, or the filing of a notification of planned changes or anticipated noncompliance, will not stay any permit condition.
- 4) This permit does not convey any property rights of any sort, nor grant any exclusive privilege.
- 5) The permittee shall furnish to the Air Pollution Control Program, upon receipt of a written request and within a reasonable time, any information that the Air Pollution Control Program reasonably may require to determine whether cause exists for modifying, reopening, reissuing or revoking the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the Air Pollution Control Program copies of records required to be kept by the permittee. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 10 CSR 10-6.065(6)(C)1.

Incentive Programs Not Requiring Permit Revisions

10 CSR 10-6.065(6)(C)1.H.

No permit revision will be required for any installation changes made under any approved economic incentive, marketable permit, emissions trading, or other similar programs or processes provided for in this permit.

Compliance Requirements

10 CSR 10-6.065(6)(C)3.

- I) Any document (including reports) required to be submitted under this permit shall contain a certification signed by the responsible official.
- II) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized officials of the Missouri Department of Natural Resources, or their authorized agents, to perform the following (subject to the installation's right to seek confidential treatment of information submitted to, or obtained by, the Air Pollution Control Program):
 - A) Enter upon the premises where a permitted installation is located or an emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
 - B) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - C) Inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and

- D) As authorized by the Missouri Air Conservation Law, Chapter 643, RSMo or the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the terms of this permit, and all applicable requirements as outlined in this permit.
- III) All progress reports required under an applicable schedule of compliance shall be submitted semiannually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
 - A) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
 - B) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
- IV) The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually by April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, as well as the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and Part 64 exceedances and excursions must be included in the compliance certifications. The compliance certification shall include the following:
 - A) The identification of each term or condition of the permit that is the basis of the certification,
 - B) The current compliance status, as shown by monitoring data and other information reasonably available to the installation,
 - C) Whether compliance was continuous or intermittent,
 - D) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period, and
 - E) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

Permit Shield

10 CSR 10-6.065(6)(C)6.

- I) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date that this permit is issued, provided that:
 - A) The applicable requirements are included and specifically identified in this permit; or
 - B) The permitting authority, in acting on the permit revision or permit application, determines in writing that other requirements, as specifically identified in the permit, are not applicable to the installation, and this permit expressly includes that determination or a concise summary of it.
- II) Be aware that there are exceptions to this permit protection. The permit shield does not affect the following:
 - A) The provisions of section 303 of the Act or section 643.090, RSMo concerning emergency orders,
 - B) Liability for any violation of an applicable requirement which occurred prior to, or was existing at, the time of permit issuance,
 - C) The applicable requirements of the acid rain program,
 - D) The administrator's authority to obtain information, or
 - E) Any other permit or extra-permit provisions, terms or conditions expressly excluded from the permit shield provisions.

Emergency Provisions

10 CSR 10-6.065(6)(C)7.

- I) An emergency or upset as defined in 10 CSR 10-6.065(6)(C)7. shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emissions limitations. To establish an emergency- or upset-based defense, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, the following:
 - A) That an emergency or upset occurred and that the permittee can identify the source of the emergency or upset,
 - B) That the installation was being operated properly,
 - C) That the permittee took all reasonable steps to minimize emissions that exceeded technology-based emissions limitations or requirements in this permit, and
 - D) That the permittee submitted notice of the emergency to the Air Pollution Control Program within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.

- II) Be aware that an emergency or upset shall not include noncompliance caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

Operational Flexibility

10 CSR 10-6.065(6)(C)8.

An installation that has been issued a Part 70 operating permit is not required to apply for or obtain a permit revision in order to make any of the changes to the permitted installation described below if the changes are not Title I modifications, the changes do not cause emissions to exceed emissions allowable under the permit, and the changes do not result in the emission of any air contaminant not previously emitted. The permittee shall notify the Air Pollution Control Program and the Administrator at least seven days in advance of these changes, except as allowed for emergency or upset conditions. Emissions allowable under the permit means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that established an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

- I) Section 502(b)(10) changes. Changes that, under section 502(b)(10) of the Act, contravene an express permit term may be made without a permit revision, except for changes that would violate applicable requirements of the Act or contravene federally enforceable monitoring (including test methods), record keeping, reporting or compliance requirements of the permit.
- A) Before making a change under this provision, The permittee shall provide advance written notice to the Air Pollution Control Program and to the Administrator, describing the changes to be made, the date on which the change will occur, and any changes in emission and any permit terms and conditions that are affected. The permittee shall maintain a copy of the notice with the permit, and this agency shall place a copy with the permit in the public file. Written notice shall be provided to the administrator and this agency at least seven days before the change is to be made. If less than seven days notice is provided because of a need to respond more quickly to these unanticipated conditions, The permittee shall provide notice to the administrator and the permitting authority as soon as possible after learning of the need to make the change.
- B) The permit shield shall not apply to these changes.

Off-Permit Changes

10 CSR 10-6.065(6)(C)9.

- I) Except as noted below, The permittee may make any change in its permitted operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Insignificant activities listed in the application, but not otherwise addressed in or prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the off-permit provisions of this section. Off-permit changes shall be subject to the following requirements and restrictions:
- A) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; The permittee may not change a permitted installation without a permit revision, if this change is subject to any requirements under Title IV of the Act or is a Title I modification;
- B) The permittee must provide written notice of the change to the permitting authority and to the administrator no later than the next annual emissions report. This notice shall not be required for changes that are insignificant activities under paragraph (6)(B)3. of this rule. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change.
- C) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes; and
- D) The permit shield shall not apply to these changes.

Responsible Official

10 CSR 10-6.020(2)(R)12.

The application utilized in the preparation of this was signed by Michael L. Menne, Vice President – Environmental, Safety and Health. The parent company, AmerenUE, has designated the following four individuals to serve as Responsible Officials for the Peno Creek Energy Center: Paul A. Agathen, Senior Vice President - Ameren Services, Charles D Naslund, Vice President – Power Operations, AmerenUE, Michael L. Menne, Vice President – Environmental, Safety and Health, Ameren Services, and Matthew T. Wallace, Manager – Combustion Turbines,

AmerenUE. If any of these individuals terminates employment, or is reassigned different duties such that a different person becomes a responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Director of the Air Pollution Control Program of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person(s) that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

Reopening Permit For Cause

10 CSR 10-6.065(6)(E)6.

In accordance with 10 CSR 10-6.065(6)(E)6.A., this permit may be reopened with cause if:

- 1) The Missouri Department of Natural Resources (MDNR) receives notice from the Environmental Protection Agency (EPA) that a petition for disapproval of a permit pursuant to 40 CFR § 70.8(d) has been granted, provided that the reopening may be stayed pending judicial review of that determination,
- 2) MDNR or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
- 3) Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the installation and the installation receives authorization for coverage under that general permit,
- 4) The installation is an affected source under the acid rain program and additional requirements (including excess emissions requirements), become applicable to that source, provided that, upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit; or
- 5) MDNR or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

Statement of Basis

10 CSR 10-6.065(6)(E)1.C.

This permit is accompanied by a statement setting forth the legal and factual basis for the draft permit conditions (including references to applicable statutory or regulatory provisions). This Statement of Basis, while referenced by the permit, is not an actual part of the permit.

Fugitive Emission Observations

10 CSR 10-6.060
Monthly CO Compliance Worksheet

AmerenUE- Peno Creek Energy Center
Pike County, SW 1/4, NE 1/4, S22, T53N, R3W
Installation ID Number: 163-0047

This sheet covers the period from _____ to _____.
(month, year) (month, year)

Emission Unit	Hours of Operation (hours)	Type of Fuel (note 1)	Emission Rate (lbs/hr) (note 2)	CO Emissions (tons) (note 3)
CT1A				
CT1B				
CT2A				
CT2B				
CT3A				
CT3B				
CT4A				
CT4B				
Total CO Emissions for this Month (note 4)				
12-Month CO Emissions Total From Previous Month's Worksheet (note 5)				
Monthly CO Emissions Total From Previous Year's Worksheet (note 6)				
Current 12-Month Total CO Emissions (note 7)				

Note 1: Type of fuel will either be natural gas or distillate oil.

Note 2: Emission rate will be based upon the type of fuel.

Note 3: Monthly CO emissions will be based upon CEMS data. In cases when CEMS data is no available, CO
Emissions = [(hours of operation)•(emission rate)]/2000

Note 4: Sum of CO emissions reported for all combustion turbines for the month.

Note 5: Running 12-month total CO emissions from the previous month's worksheet.

Note 6: CO emissions reported for this month in the last calendar year.

Note 7: Amount reported for Note 5 minus the amount reported for note 6 plus the amount reported for note 4, not to exceed 100.0
tons for any consecutive 12-month period.

Attachment C
10 CSR 10 –6.060
Monthly NO_x Compliance Worksheet

AmerenUE- Peno Creek Energy Center
Pike County, SW 1/4, NE 1/4, S22, T53N, R3W
Installation ID Number: 163-0047

This sheet covers the period from _____ to _____.
(month, year) (month, year)

Emission Unit	Hours of Operation (hours)	Type of Fuel (note 1)	Emission Rate (lbs/hr) (note 2)	NO _x Emissions (tons) (note 3)
CT1A				
CT1B				
CT2A				
CT2B				
CT3A				
CT3B				
CT4A				
CT4B				
Total NO _x Emissions for this Month (note 4)				
12-Month NO _x Emissions Total From Previous Month's Worksheet (note 5)				
Monthly NO _x Emissions Total From Previous Year's Worksheet (note 6)				
Current 12-Month Total NO _x Emissions (note 7)				

Note 1: Type of fuel will either be natural gas or distillate oil.

Note 2: Emission rate will be based upon the type of fuel.

Note 3: Monthly NO_x emissions will be based upon CEMS data. In cases when CEMS data is no available,

$$\text{NO}_x \text{ Emissions} = [(\text{hours of operation}) \cdot (\text{emission rate})] / 2000$$

Note 4: Sum of NO_x emissions reported for all combustion turbines for the month.

Note 5: Running 12-month total NO_x emissions from the previous month's worksheet.

Note 6: NO_x emissions reported for this month in the last calendar year.

Note 7: Amount reported for Note 5 minus the amount reported for note 6 plus the amount reported for note 4, not to exceed 100.0 tons for any consecutive 12-month period.

STATEMENT OF BASIS

Permit Reference Documents

These documents were relied upon in the preparation of the operating permit. Because they are not incorporated by reference, they are not an official part of the operating permit.

- 1) Part 70 Operating Permit Application, received April 14, 2003;
- 2) 2003 Emissions Inventory Questionnaire, received April 2, 2004;
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition.

Applicable Requirements Included in the Operating Permit but Not in the Application or Previous Operating Permits

In the operating permit application, the installation indicated they were not subject to the following regulation(s). However, in the review of the application, the agency has determined that the installation is subject to the following regulation(s) for the reasons stated.

10 CSR 10-6.180, *Measurement of Emissions of Air Contaminants*, was included. This regulation allows the director to request tests or measurements to be conducted of an emission source to determine the quantity of emission of air contaminants.

Other Air Regulations Determined Not to Apply to the Operating Permit

The Air Pollution Control Program (APCP) has determined the following requirements to not be applicable to this installation at this time for the reasons stated. The applicant indicated they were subject to 10 CSR 10-3.080 "Restriction of Emission of Visible Air Contaminant, however, 10 CSR 10-3.080 was rescinded from Chapter 3 and the state opacity requirements were incorporated in 10 CSR 10-6.220 under Chapter 6 of the Air Pollution regulations.

10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*

This rule exempts emissions sources that are subject to 40 CFR Part 60 (NSPS). Peno Creek Energy Center is subject to 40 CFR Part 60 subpart GG, Standards of Performance for Stationary Gas Turbines and therefore exempt from this rule

10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds*

The permittee qualifies for the exemption in §(1)(A) of this rule since 10 CSR 10-6.070, *New Source Performance Regulations, Subpart GG* applies to this installation and places limits on emissions of sulfur dioxide (SO_x).

Construction Permit Revisions

The following revisions were made to construction permits for this installation:

None

NSPS Applicability

10 CSR 10-6.070, *New Source Performance Regulations*

40 CFR Part 60 Subpart GG, *Standards of Performance for Stationary Gas Turbines*

The provisions of this subpart are applicable to the permittee with the following exceptions:

1. The nitrogen oxides (NO_x) emission limit established in New Source Review Permit 112001-007 supersedes the NO_x emission limit established in Subpart GG. Calculations demonstrate that the NO_x emission limit is lower than the Subpart GG NO_x Emission Limit.

The combustion turbines are subject to the requirements of §60.332(a)(1) of 40 CFR Part 60 Subpart GG. However, since the NO_x emission standard of Subpart GG (152 ppmv when burning natural gas at 15% O₂ dry basis as determined by §60.332(a)(1)) is less stringent than the NO_x emission limit imposed by New Source Review Permit 112001-007, the NSPS §60.332(a)(1) standard is not listed as a permit condition to these units. Compliance with the NO_x limit imposed by the New Source Review permit will assure compliance with the §60.332(a)(1) standard.

Discussion:

Per 40 CFR 60.332(b), stationary gas turbines with a heat input load equal to or greater than 107.2 gigajoules per hour (100 MMBtu/hr) have a NO_x limit determined by the following equation:

$$\text{STD} = (0.0075)(14.4/Y) + F$$

Where:

STD = allowable NO_x emissions (% by volume at 15 percent oxygen and on a dry basis), and
Y = manufacture's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt-hour.

Given: Manufacture's Rated Heat Rate = 10,000 Btu/kW-hr

Y = (10,000 Btu/kW hr)(1.0548 kJ/Btu)(1 kW/1000 W) = 10.548 kJ/Whr

F = NO_x emission allowance for fuel bound nitrogen as defined in the following table:

Fuel-Bound Nitrogen	
% (percent by weight)	F (NO _x percent by volume)
N ≤ 0.015	0
0.015 < N ≤ 0.1	0.04 x N
0.1 < N ≤ 0.25	0.004 + 0.0067 X (N - 0.1)
N > 0.25	0.005

N = the nitrogen content of the fuel (percent by weight)

F = 0.005 (Given that nitrogen percent by weight of natural gas ranges from 0.6 - 5.0%)

STD (NO_x Emission Limit) Calculation

STD = (0.0075)(14.4/Y) + F
= (0.0075)(14.4/10.548) + 0.005
= 0.0152 % or 152 ppmv NO_x at 15 % oxygen

The New Source Review Permit limitation of 25 ppmv of NO_x is less than the NSPS limitation of 152 ppmv NO_x. Therefore, because the installation meets the permit limitation of 25 ppmv NO_x limitation, the limitation contained within Subpart GG is also satisfied.

MACT Applicability

Subpart YYYYY establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emissions from stationary combustion turbines located at major sources of HAP emissions, and requirements to demonstrate initial and continuous compliance with the emission and operating limitations.

Prior to the promulgation of subpart YYYYY, Peno Creek received a construction permit with NO_x and CO emissions limited to 100 tons per year or less. Due to these limitations, the facility is indirectly limited to below major HAP emissions. The estimated potential emission of formaldehyde is 1.4 tons per year.

NESHAP Applicability

Same as MACT

CAM Applicability

40 CFR Part 64, *Compliance Assurance Monitoring (CAM)*

The CAM rule applies to each pollutant specific emission unit that meets all of the following:

- Is subject to an emission limitation or standard, and
- Uses a control device to achieve compliance, and
- Has pre-control emissions that exceed or are equivalent to the major source threshold.

40 CFR Part 64 is not applicable because this installation is limited by permit conditions such that emissions from the installation are below the major source threshold.

Other Regulatory Determinations

10 CSR 10-6.350, *Emissions Limitations and Emissions Trading of Oxides of Nitrogen*.

10 CSR 10-6.350 currently has two versions of the rule. 10 CSR 10-6.350 was originally filed on February 15, 2000. On December 4, 2002 the Air Pollution Control Program filed amendments to the February 15, 2000 version of the rule. The rule amendment of December 4, 2002 was presented to the Missouri Air Conservation Commission on April 24, 2003 and it was adopted by the commission. This amendment establishes a tighter emission limitation (from 0.25 lb/mmBtu to 0.18 lb/

mmBtu) for affected sources located in the City of St. Louis and counties of Franklin, Jefferson, and St. Louis. The revised rule did not change any emission limitations for the remaining sources within the eastern one-third of Missouri. These NO_x sources are still limited to the more stringent rate of 0.25 lbs NO_x/million British thermal units (mmBtu) of heat input in the eastern one-third of Missouri during the control period or any applicable permitted NO_x limitation under 10 CSR 10-6.060. Each combustion turbine is limited in the construction permits to 25 parts per million by volume, dry (ppmvd) or 0.093 lb.NO_x/ mmbtu, when combusting natural gas, and 42 ppmvd or 0.16 lb NO_x/ mmbtu when combusting distillate oil. The construction permit limits are more restrictive than 0.25 lb NO_x/ mmbtu.

Concentration Conversion from ppmv to pounds of NO_x per million BTU of heat input:

- 1) Multiply by 1.194×10^{-7} (conversion to lb NO_x /dscf from 40 CFR Part 60 App. A, Method 20)
- 2) Multiply by dry F factor (ratio of gas volume of products of combustion to heat content of fuel):
 - a) 9,190 dscf/mmBtu for crude, residual or distillate oil
 - b) 8,710 dscf/mmBtu for natural gas, propane or butane
- 3) Multiply by 20.9, then divide by 5.9 (correction to 15% oxygen, from Equation 20-6 in 40 CFR Part 60 App. A, Method 20) to obtain mass emission rate E

For example, a natural gas unit with a CP limit of 25ppmv:

$$\text{Emission Rate} = (25 \text{ ppmv}) (1.194 \times 10^{-7}) \frac{2.985 \times 10^{-6} \text{ lbNO}_x}{\text{dscf}} \times \frac{8710 \text{ dscf}}{\text{mmBtu}} \times \frac{20.9}{20.9 - 15} = 0.092 \frac{\text{lbNO}_x}{\text{mmBtu}}$$

Other Regulations Not Cited in the Operating Permit or the Above Statement of Basis

Any regulation which is not specifically listed in either the Operating Permit or in the above Statement of Basis does not appear, based on this review, to be an applicable requirement for this installation for one or more of the following reasons:

1. The specific pollutant regulated by that rule is not emitted by the installation;
2. The installation is not in the source category regulated by that rule;
3. The installation is not in the county or specific area that is regulated under the authority of that rule;
4. The installation does not contain the type of emission unit which is regulated by that rule;
5. The rule is only for administrative purposes.

Should a later determination conclude that the installation is subject to one or more of the regulations cited in this Statement of Basis or other regulations which were not cited, the installation shall determine and demonstrate, to the APCP's satisfaction, the installation's compliance with that regulation(s). If the installation is not in compliance with a regulation which was not previously cited, the installation shall submit to the APCP a schedule for achieving compliance for that regulation(s).

Prepared by:

Refaat Mefrakis
Environmental Engineer

Paul A. Agathen, Senior Vice President
Ameren Services
Peno Creek Energy Center
16303 Pike 43
Bowling Green, MO 63334

Re: Peno Creek Energy Center, 163-0047
Permit Number:

Dear Mr. Agathen:

Enclosed with this letter is your Part 70 operating permit. Please review this document carefully. Operation of your installation in accordance with the rules and regulations cited in this document is necessary for continued compliance. It is very important that you read and understand the requirements contained in your permit.

If you have any questions or need additional information regarding this permit, please contact the Air Pollution Control Program (APCP) at (573) 751-4817, or you may write to the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Michael Stansfield
Operating Permit Unit Chief

MJS:rmb

Enclosure(s)

c: US EPA Region VII
Northeast Regional Office
PAMS File: 2003-04-092

Michael L. Menne
Peno Creek Energy Center
16303 Pike 43
Bowling Green, MO 63334

CERTIFIED MAIL: 7001 2510 0005 7346 8270
RETURN RECEIPT REQUESTED

Re: Draft Part 70 Operating Permit – Project Number, Pams Number: 2003-04-092

Dear Mr. Menne:

The Air Pollution Control Program (APCP) has completed the preliminary review of your Part 70 (Title V) permit application. A public notice will be placed in The Bowling Green Times on Wednesday, March 2nd, 2005.

The APCP will accept comments regarding the draft permit that are postmarked on or before the closing date. It is very important that you read and understand this legal document. You will be held responsible for complying with this document.

Please address comments or recommendations for changes to my attention at:

Operating Permits Unit
Air Pollution Control Program
P.O. Box 176
Jefferson City, MO 65102

A copy of this draft has also been sent to the U.S. EPA's Region VII office in Kansas City for their review. The Region VII office is afforded, by law, oversight authority on any Title V permit which Missouri or (any other affected states in the region) may propose to issue. A public hearing may be held if interest is expressed by the public.

Should you have any questions, or wish clarification on any items in this draft permit, please feel free to contact me at (573) 751-4817, or you may write to the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Refaat Mefrakis
Environmental Engineer

RHM/be

Enclosure(s)

c: PAMS File: 2003-04-092

Mr. David Kolaz, Bureau Chief
Illinois Environmental Protection Agency
Division of Air Pollution Control
P.O. Box 19276
Springfield, IL 63794-9276

RE: Affected States Review – Notification of Proposed Final Part 70 Operating Permit

Dear Mr. Kolaz:

In accordance with Missouri State Rule 10 CSR 10-6.065(6)(F)1. and the Clean Air Act this letter is to notify you of public notice of the preliminary draft and request for comments for:

Peno Creek Energy Center located in Bowling Green, MO

Project Number - 2003-04-092

Public notice will be published in The Bowling Green Times in Bowling Green, on Wednesday, March 2nd, 2005.

You are invited to submit any relevant information, materials, and views in support of or in opposition to the draft operating permits in writing by no later than Saturday, April 2nd, 2005 to my attention at Missouri Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102.

Should you require further information or documentation on this matter, please contact the Operating Permits Unit at (573) 751-4817, or you may write to the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102. Thank you for your time and attention.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Michael Stansfield, P.E.
Operating Permit Unit Chief

MJS:rmb

c: PAMS File: 2003-04-092

For Publication on: Wednesday, March 2nd, 2005

Notice of documents available for public viewing
Department of Natural Resources
Air and Land Protection Division
Air Pollution Control Program

A draft-operating permit has been issued for the following air pollution sources:

Installation	City	Project #
Peno Creek Energy Center	Bowling Green	2003-04-092

Activities included in these permits are all activities involved in the operation of these sources with the potential for producing regulated quantities of regulated air pollutants.

Copies of the draft permits are available for public comment. Public files containing copies of all non-confidential materials and a copy or summary of other materials, if any, considered in this draft permit, are available for public viewing at the following locations: MO Dept. of Natural Resources' Northeast Regional Office, 1709 Prospect Drive, Ste. A, Macon, MO 63352, or by written request from the Air Pollution Control Program, Operating Permits Unit, P.O. Box 176, Jefferson City, MO 65102. (Any information deemed confidential business information pursuant to Missouri State Rule 10 CSR 10-6.210, *Confidential Information*, if any exists, are not included in the public files. Emission data, as defined by this rule, cannot be considered confidential business information).

The file is available for viewing through . Citizens are invited to submit any relevant information, materials, and views in support of or in opposition to the draft operating permits in writing no later than April 2nd, 2005. Written comments and/or requests for public hearing should be sent to Ms. Leanne Tippet Mosby, Director, Missouri Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102.

The Air Pollution Control Program will hold an informal public hearing after an additional 30 day comment period on the draft permit if: 1.) A timely request is made for such a hearing during the public comment period; and 2.) The person requesting the hearing identifies material issues concerning the preliminary determination and the Air Pollution Control Program determines that a public hearing will be useful in resolving those issues.

This public notice is made pursuant to Missouri State Rule 10 CSR 10-6.065, Operating Permits.

The Bowling Green Times
106 West Main Street
P.O. Box 110
Bowling Green, MO 63334

Attention: Legal Ads

Dear Linda:

We wish to place the attached legal advertisement in your newspaper to be run ONCE. It must run on Wednesday, March 2nd, 2005.

We require a certified affidavit of publication. This must be received by our office by March 22, 2005. Please submit the affidavit and invoice for payment to:

Attention: Cheri Bechtel
Department of Natural Resources
Air Pollution Control Program
P. O. Box 176
Jefferson City, MO 65102

If you have any questions, please contact me at (573) 751-4817. Thank you for your assistance.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Michael Stansfield, P.E.
Operating Permits Unit Chief

MJS/rmb

c: Cheri Bechtel, Procurement Clerk
PAMS File: 2003-04-092

MISSOURI DEPARTMENT OF NATURAL RESOURCES FOLDER TRANSMITTAL ROUTING SHEET		Document #: Division Log #: Program Log #:
DEADLINE: Feb 16, 2005		Penalty for Missing Deadline: None
Peno Creek Energy Center		2003-04-092
Originator: Refaat Mefrakis		Telephone: 1-7726
		Date:
Typist: Brenda E.		File Name: P:\APCP\Permits\Users\Refaat Mefrakis\Part 70\2003-04-092 AmerenUE Peno
FOR SIGNATURE APPROVAL OF:		
<input type="checkbox"/> DNR Director <input type="checkbox"/> DNR Deputy Director <input type="checkbox"/> Division Director <input type="checkbox"/> Division Deputy Director X Other: Leanne Tippet Mosby		
PROGRAM APPROVAL: Approved by: _____ Program: APCP Date: _____		
Other Program Approval (Section/Unit): _____ Date: _____		
Comments: _____		
ROUTE TO:		
<input type="checkbox"/> DIVISION DIRECTOR APPROVAL: _____		Date: _____
Comments: _____		
<input type="checkbox"/> FINANCIAL REVIEW – DIVISION OF ADIMINSTRATIVE SUPPORT:		
DAS Director: _____		Date: _____
<input type="checkbox"/> Fee Worksheet Received By: _____		Date: _____
Accounting: _____		Date: _____
Budget: _____		Date: _____
General Services: _____		Date: _____
Internal Audit: _____		Date: _____
Purchasing: _____		Date: _____
Comments: _____		
<input type="checkbox"/> LEGAL REVIEW:		
<input type="checkbox"/> General Counsel: _____		Date: _____
<input type="checkbox"/> AGO: _____		Date: _____
Comments: _____		
<input type="checkbox"/> DEPARTMENT DIRECTOR APPROVAL: _____		Date: _____
Comments: _____		
<input type="checkbox"/> NOTARIZATION NEEDED		
		INITIALS/DATE